

now filled the whole southern end of the sound. We now steamed slowly back to the northward again, and continued in that direction until 28th January. A north-westerly gale on this occasion allowed us to approach Cape Adare closely, and on 29th January we proceeded northwards, passing between the pack and the land into open water, crossing the Antarctic Circle on 31st January.

We continued northward until 4th February, when the following message was despatched by wireless, in code arranged previously, to the Navy Office, Melbourne, and to the Minister of Marine, New Zealand :—

"The 'Aurora' arrived at Cape Evans, all well, on 10th January, and relieved the seven surviving members of the Shackleton Expedition—namely, Stevens, Joyce, Cope, Wild, Richards, Gate, Jack—who were found all well. I regret to report that during the second year of the Expedition Rev. A. P. Spencer-Smith died of scurvy on the Barrier on 9th March, 1916. Captain Mackintosh and V. G. Hayward perished on 8th May, 1916, being overtaken by a blizzard which broke up the sea ice over which they were attempting to cross from Hut Point to Cape Evans. The 'Aurora' left McMurdo Sound on 19th January, and should arrive Wellington about 10th February. Next-of-kin: Smith—Mother, 51 Palace Street, Westminster, London; Mackintosh—wife, 'The Lindens,' Bedford, England; Hayward—mother, 'Ecklinville,' Connaught Road, Harlesden, London. Will you communicate with them, and notify me when this has been done.—DAVIS."

On 6th February we were overtaken by a fresh south-westerly gale, which continued for the next forty-eight hours, the vessel making an average speed of 9 knots under steam and sail.

In concluding this report I desire to bring to your notice the excellent conduct of the ship's company, fore and aft; all have worked loyally and cheerfully to carry out the object of the Expedition. Mr. C. F. de la Motte, the chief officer, I would specially mention. It would be hard to overrate the value of his experience and sound common-sense on a voyage of this kind. Mr. Gillies, the chief engineer, and his staff have kept the "Aurora" going throughout. To Sir Ernest Shackleton, who was given charge of such shore operations as were necessary, my thanks are due for his cordial and ready assistance at all times. Instructor Moyes, R.A.N., although sledging operations proved unnecessary, has, in conjunction with the second officer, relieved me of all routine navigating duties. He has also acted as meteorologist and draughtsman. Mr. A. H. Ninnis has assisted me in the preparation of this report.

The "Aurora" arrived at Wellington, all well, at 7 p.m. this evening, 9th February, 1917, and berthed at the Wool Wharf.

JOHN KING DAVIS,
Commanding Relief Expedition

THE CIRCUMSTANCES CONCERNING THE LOSS OF CAPTAIN MACKINTOSH AND V. G. HAYWARD ON 8TH MAY, 1916.

In March, 1916, the southern party of the Expedition, consisting of Captain Mackintosh, Joyce, Wild, Richards, and Hayward, returns to the Discovery Hut at Hut Point after depot-laying, and were housed there.

Cape Evans, the winter quarters of the Expedition, is separated from Hut Point by a distance of 15 miles across McMurdo Bay, the passage between the two places being only practicable when the sea is frozen, and should occupy about five hours. The time of freezing depends on the season, strength of the gales, &c., but it is usually midwinter—viz., June—before it is really safe to travel over the bay. The weather conditions at this time of the year may be predicted with some certainty—constant blizzards which are accompanied by thick drift, varied by short intervals of calm, clear weather, when the temperature falls, and the sea ice, which has been broken up by the gales, re-forms. A short period of twilight prevails at this time of the year for about five hours on either side of noon in clear weather.

On 8th May, 1916, Captain Mackintosh and Mr. Hayward, after a short period of fine weather, decided to attempt to reach Cape Evans. The sea ice over which the route to Cape Evans lay had been forming for only four days, and is reported to have been about 4 in. thick—strong enough to travel on, but too sticky for a loaded sledge and party. The remaining three members of the party had doubts as to the wisdom of this journey, and expressed them. Captain Mackintosh then announced that if bad weather did come on they would return to Hut Point, and started at 1 p.m. in calm weather, with a temperature of 21° F., and without any equipment. He was watched by the remainder of the party till nearly 2 miles to the north, heading for Cape Evans.

At 3 p.m., a blizzard coming on, anxiety was felt by the party at Hut Point for the safety of these two men, and on the first practicable day, 10th May, they followed the tracks of Captain Mackintosh and his companion to the north for a distance of about 2 miles. Here the ice that they had been travelling over ended abruptly, sound ice only existing to the north. Further search for this party was impossible, and the party at Cape Evans was naturally in ignorance of the attempted crossing.

The wind-velocity at Cape Evans at 3 p.m. is recorded as 19 miles per hour, reaching 44 miles per hour at 7 p.m., wind from S.E., the temperature having risen to -15° F., and also that the majority of the ice in the sound went out during this blow, "frost-smoke" afterwards being observed to the south, indicating the existence there of a large body of open water.

Captain Mackintosh and Mr. Hayward never arrived at Cape Evans, nor has any trace of them been discovered since. As they had only been on the journey some two hours at the time this blizzard overtook them, it would appear most likely that they had not had time to get near to